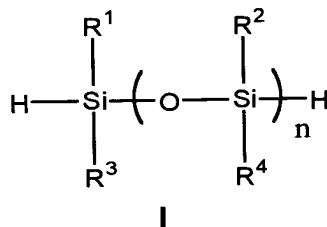


In the Claims:

1. A process for the preparation of an alkoxyisilyl silane or siloxane containing at least one polymerizable functional group selected from epoxy, vinyl ether, 1-propenyl ether, acrylate and methacrylate, said process comprising:

- a. selectively reacting at least one compound of formula I



with at least one compound chosen from A or B, to form at least one monohydrosilane or monohydrosiloxane; and

b. reacting said at least one monohydrosilane or monohydrosiloxane with at least one compound chosen from A and B, to form an alkoxyisilyl silane or siloxane, with the proviso that

when A is used in step (a), B is used in step (b), and
when B is used in step (a), A is used in step (b); and

wherein

A is a compound containing at least one vinyl or allyl group and at least one group selected from epoxy, vinyl ether, 1-propenyl ether, acrylate and methacrylate;

B is a compound containing at least one vinyl or allyl group and at least one dialkoxyisilyl or trialkoxyisilyl group;

R¹ - R⁴ are independently hydrogen, alkyl, haloalkyl, arylalkyl, aryl or heterocyclic; and

n is 0 or an integer from 1 to 100.

2. A process according to claim 1, wherein A is a compound comprising a linear, branched or cyclic alkyl or alkyl ether residue of 1-20 carbon atoms, or 1-20 carbon atoms and 1-9 oxygen atoms, substituted with at least one vinyl or allyl group and at least one group selected from epoxy, vinyl ether, 1-

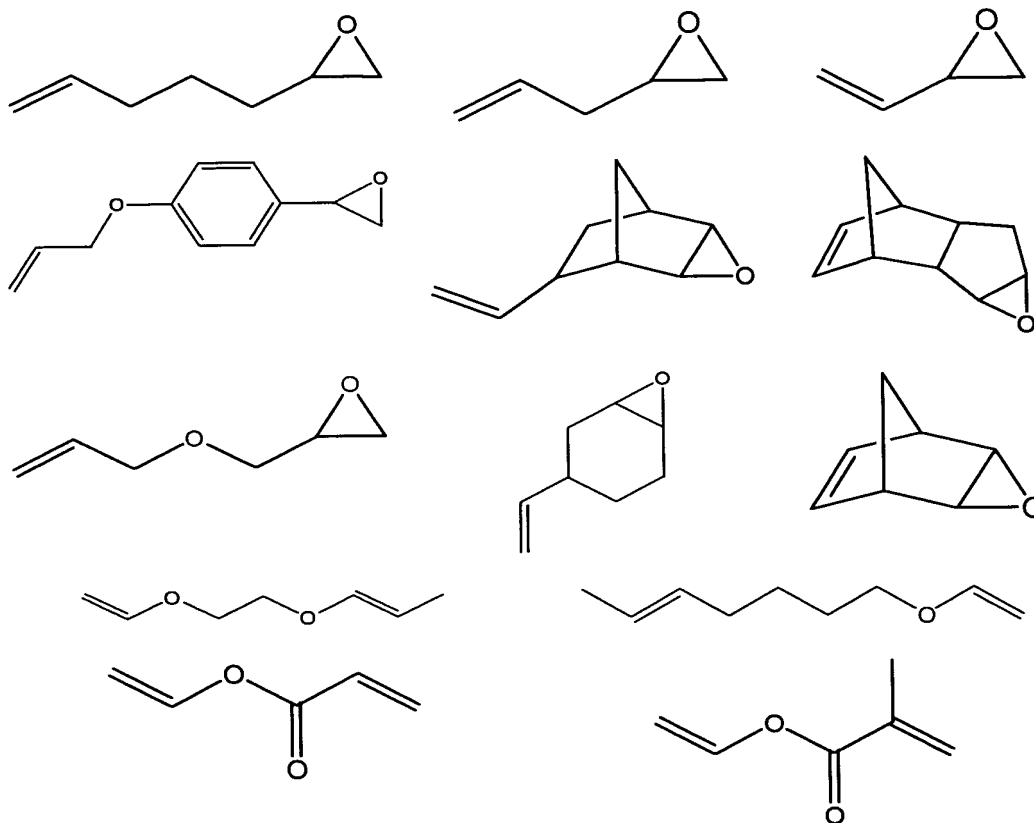
propenyl ether, acrylate and methacrylate.

3. A process according to claim 2, wherein said at least one group is an epoxy group.

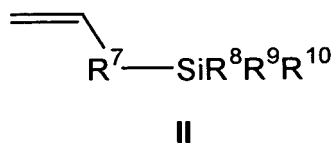
4. A process according to claim 2, wherein said at least one group is a
a
1-propenyl ether group.

5. A process according to claim 1, wherein A is used in step (a), and B is used in step (b).

6. A process according to claim 1, wherein A is selected from the group consisting of



7. A process according to claim 1, wherein **B** is an alkoxy silane of formula II

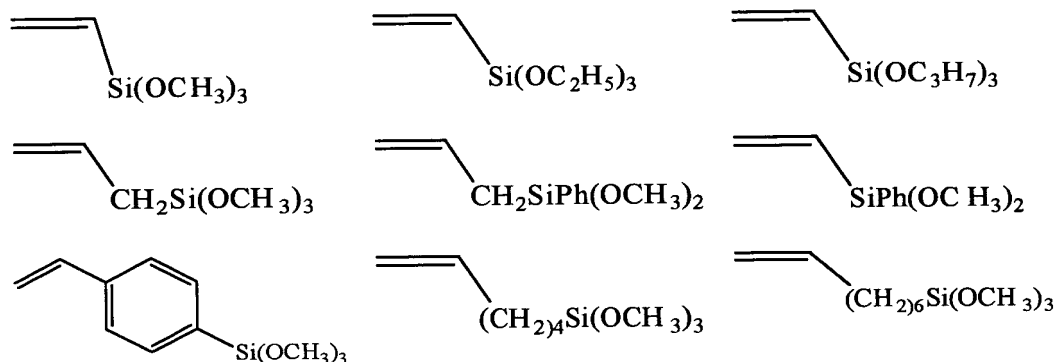


wherein

R^7 is a direct bond or a divalent aryl, alkyl or arylalkyl residue having 1-20 carbon atoms; and

R^8 , R^9 , and R^{10} is independently alkyl, aryl, arylalkyl, chloroalkyl, fluoroalkyl, heteroalkyl, heteroaryl, alkoxy, arylalkoxy, chloroalkoxy, or fluoroalkoxy.

8. A process according to claim 7, wherein **B** is selected from:



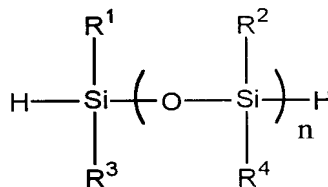
9. A process according to claim 1, wherein **A** is 3-vinyl-7-oxabicyclo[4.1.0]heptane.
10. A process according to claim 1, wherein **B** is vinyltrimethoxysilane.
11. A process according to claim 1, wherein $\text{R}^1 - \text{R}^4$ is methyl and n is 1-3.

12. A process according to claim 1, wherein I is 1,1,3,3 tetramethyldisiloxane

13. A process according to claim 1, wherein I is 1,1,3,3 tetramethyldisiloxane, A is 3-vinyl-7-oxabicyclo[4.1.0]heptane, and B is vinyl trimethoxysilane.

14. A process for the preparation of an alkoxy silyl silane or siloxane substituted with at least one polymerizable functional group selected from epoxy, vinyl ether, 1-propenyl ether, acrylate and methacrylate, said process comprising:

a. selectively reacting at least one compound of formula I



I

with at least one compound chosen from A or B, to form at least one monohydrosilane or monohydrosiloxane; and

b. reacting said at least one monohydrosilane or monohydrosiloxane with at least one compound chosen from A and B, to form an alkoxy silyl silane or siloxane, with the proviso that

when A is used in step (a), B is used in step (b), and

when B is used in step (a), A is used in step (b); and

c. in the presence of an ion exchange resin, reacting 0.5 to 2.5 equivalents water with said alkoxy silyl siloxane; and

d. separating the ion exchange resin from a product of the reaction; wherein

A is a compound containing at least one vinyl or allyl group and at least one group selected from epoxy, vinyl ether, 1-propenyl ether, acrylate and methacrylate,

B is a compound containing at least one vinyl or allyl group and at least one dialkoxy silyl or trialkoxy silyl group;

R¹ -R⁴ are independently hydrogen, alkyl, haloalkyl, arylalkyl, aryl or

heterocyclic; and

n is 0 or an integer from 1 to 100.

15. A process according to claim 14, additionally comprising reacting in step (c), at least one alkoxysilane selected from alkoxysilanes of formula $\text{SiR}^6\text{R}^8\text{R}^9\text{R}^{10}$ and formula $\text{SiR}^8\text{R}^9\text{R}^{10}\text{FG}$;

wherein

R^6 , R^8 , R^9 , and R^{10} is, independently, alkyl, aryl, arylalkyl, chloroalkyl, fluoroalkyl, heteroalkyl, heteroaryl, alkoxy, arylalkoxy, chloroalkoxy, or fluoroalkoxy of 1 to 10 carbons;

m is 0 or an integer from 1 to 3; and

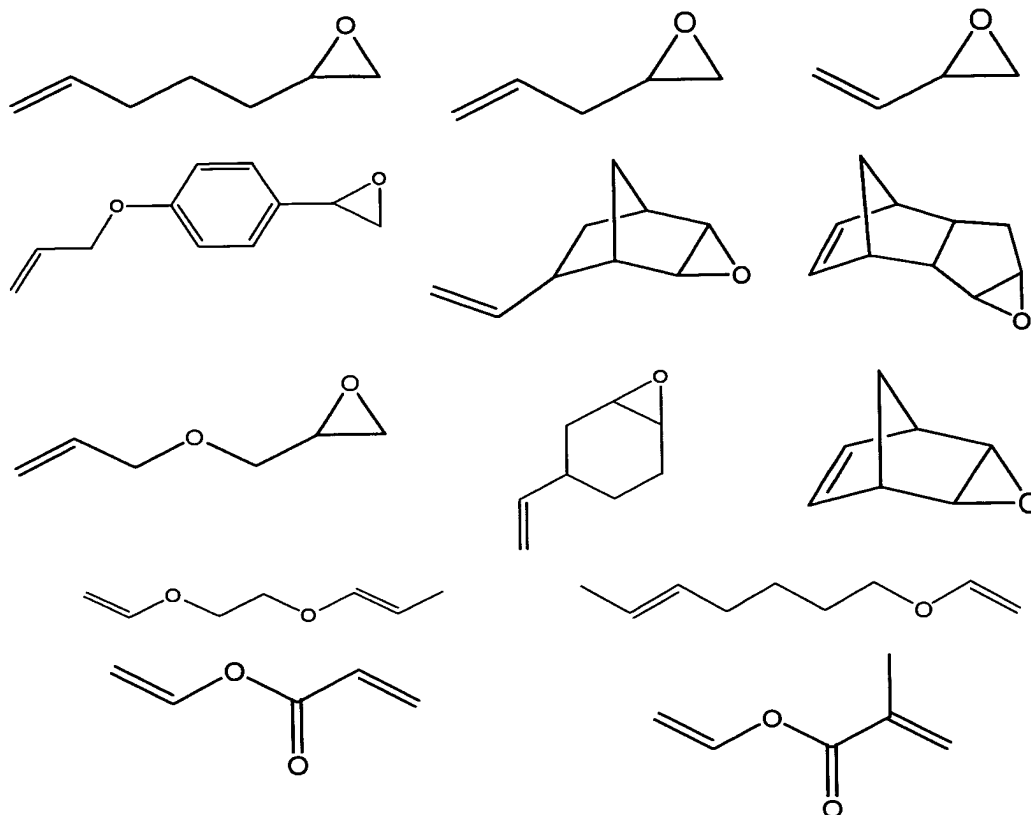
FG is a linear, branched or cyclic alkyl or alkyl ether residue of 1-20 carbon atoms, or 1-20 carbon atoms and 1-9 oxygen atoms, substituted with at least one group selected from epoxy, vinyl ether, 1-propenyl ether, acrylate and methacrylate.

16. A process according to claim 15, wherein said at least one alkoxysilane is an alkoxysilane of formula $\text{SiR}^6\text{R}^8\text{R}^9\text{R}^{10}$.

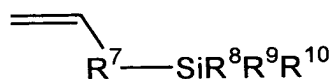
17. A process according to claim 14, wherein A is used in step (a), and B is used in step (b).

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18. A process according to claim 14, wherein **A** is selected from:



19. A process according to claim 14, wherein **B** is an alkoxy silane of formula II

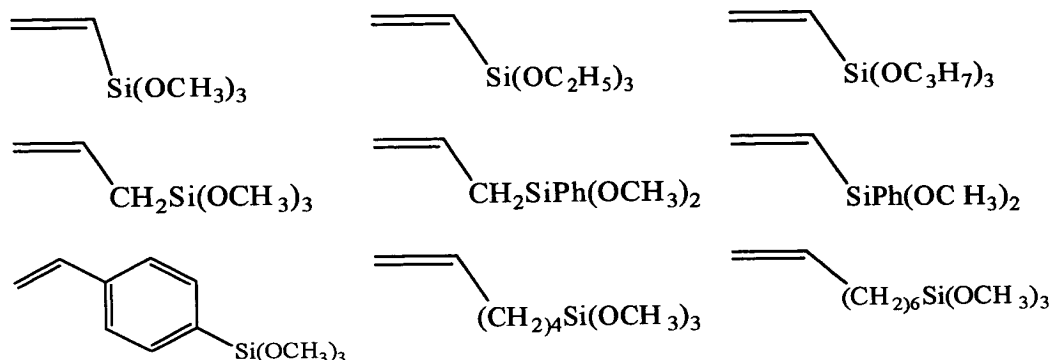


II

wherein

R^7 is a direct bond or a divalent aryl or alkyl residue; and
 R^8 , R^9 , and R^{10} are independently alkyl, aryl, arylalkyl, chloroalkyl,
 fluoroalkyl, heteroalkyl, heteroaryl, alkoxy, arylalkoxy,
 chloroalkoxy, or fluoroalkoxy.

20. A process according to claim 19, wherein **B** is selected from:



21. A process according to claim 14, wherein **A** is 3-vinyl-7-oxabicyclo[4.1.0]heptane.
22. A process according to claim 14, wherein **B** is vinyl trimethoxysilane.
23. A process according to claim 14, wherein $R^1 - R^4$ is methyl and n is 1-3.
24. A process according to claim 14, wherein **I** is 1,1,3,3-tetramethyldisiloxane.
25. A process according to claim 14, wherein **I** is 1,1,3,3,5,5-hexamethyltrisiloxane.
26. A process according to claim 14, wherein **I** is 1,1,3,3,5,5,7,7-octamethyltetrasiloxane.
27. A process according to claim 14, wherein **I** is methylphenylsilane.

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28. 1-[2-(3-(7-Oxabicyclo[4.1.0]heptyl)ethyl)-3-[2-trimethoxysilylethyl]-1,1,3,3-tetramethyldisiloxane.

29. 1-[2-(3-(7-Oxabicyclo[4.1.0]heptyl)ethyl)-5-[2-trimethoxysilylethyl]-1,1,3,3,5,5-hexamethyltrisiloxane.

30. 1-[2-(3-(7-Oxabicyclo[4.1.0]heptyl)ethyl)-7-[2-trimethoxysilylethyl]-1,1,3,3,5,5,7,7-octamethyltetrasiloxane.

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